

ENTERED

PCT09

RAW SEQUENCE LISTING DATE: 03/07/2002 PATENT APPLICATION: US/09/830,338 TIME: 15:41:41

Input Set : A:\Ikeda Sequence Listing.txt
Output Set: N:\CRF3\03072002\I830338.raw

```
3 <110> APPLICANT: IKEDA, Johe
              SAKAI, Harumi
      6 <120> TITLE OF INVENTION: Monoclonal Antibodies Against Human Apoptosis Inhibitory
Protein NAIP,
              and Method For Assaying the NAIP
      9 <130> FILE REFERENCE: 2001-0515A/WMC/00653
     11 <140> CURRENT APPLICATION NUMBER: 09/830,338
C--> 12 <141> CURRENT FILING DATE: 2001-08-13
     14 <150> PRIOR APPLICATION NUMBER: PCT/JP99/05841
     15 <151> PRIOR FILING DATE: 1999-10-22
     增 <160> NUMBER OF SEQ ID NOS: 2
     19 <210> SEQ ID NO: 1
     2⊕ <211> LENGTH: 1403
       <212> TYPE: PRT
        <213> ORGANISM: Homo sapiens
        <400> SEQUENCE: 1
          Met Ala Thr Gln Gln Lys Ala Ser Asp Glu Arg Ile Ser Gln Phe Asp
     26
                                                10
     27
          His Asn Leu Leu Pro Glu Leu Ser Ala Leu Leu Gly Leu Asp Ala Val
     28
     29
          Gln Leu Ala Lys Glu Leu Glu Glu Glu Glu Gln Lys Glu Arg Ala Lys
     <u>30</u>
                                        40
          Met Gln Lys Gly Tyr Asn Ser Gln Met Arg Ser Glu Ala Lys Arg Leu
          Lys Thr Phe Val Thr Tyr Glu Pro Tyr Ser Ser Trp Ile Pro Gln Glu
     34
                                70
     35
          Mét Ala Ala Ala Gly Phe Tyr Phe Thr Gly Val Lys Ser Gly Ile Gln
     36
                                                90
     37
          Cys Phe Cys Cys Ser Leu Ile Leu Phe Gly Ala Gly Leu Thr Arg Leu
     38
                                           105
          Pro Ile Glu Asp His Lys Arg Phe His Pro Asp Cys Gly Phe Leu Leu
     39
     40
                                       120
                                                           125
          Asn Lys Asp Val Gly Asn Ile Ala Lys Tyr Asp Ile Arg Val Lys Asn
     41
     42
     43
          Leu Lys Ser Arg Leu Arg Gly Gly Lys Met Arg Tyr Gln Glu Glu Glu
     44
                              150
                                                   155
     45
          Ala Arg Leu Ala Ser Phe Arg Asn Trp Pro Phe Tyr Val Gln Gly Ile
                                               170
     47
          Ser Pro Cys Val Leu Ser Glu Ala Gly Phe Val Phe Thr Gly Lys Gln
     48
                      180
                                           185
     49
          Asp Thr Val Gln Cys Phe Ser Cys Gly Gly Cys Leu Gly Asn Trp Glu
     50
                                       200
                                                           205
     51
          Glu Gly Asp Asp Pro Trp Lys Glu His Ala Lys Trp Phe Pro Lys Cys
```

215

52

.



RAW SEQUENCE LISTING DATE: 03/07/2002 PATENT APPLICATION: US/09/830,338 TIME: 15:41:41

Input Set: A:\Ikeda Sequence Listing.txt
Output Set: N:\CRF3\03072002\I830338.raw

53		Phe	Leu	Arg	Ser	_	Lys	Ser	Ser	Glu		Ile	Thr	Gln	Tyr	
54 55	225	Com	m	Ta	c1	230	17 a 1	7 02	т1 о	mh-s	235	C1	111.0	Dho	Val	240
56	GIII	261	TAT	гу	245	PILE	vaı	мэр	ire	250	СТУ	GIU	нтѕ	Pne	255	ASII
57	Ser	Trp	Va l	Gln		Glu	Leu	Pro	Met		Ser	Ala	Tvr	Cvs	Asn	Asp
58	001			260	9	O_Lu	204		265		001	*****	-1-	270	11011	пор
59	Ser	Ile	Phe		Tyr	Glu	Glu	Leu		Leu	Asp	Ser	Phe		Asp	Trp
60			275		•			280			-		285	-	-	-
61	Pro	Arg	Glu	Ser	Ala	Val	Gly	Val	Ala	Ala	Leu	Ala	Lys	Ala	Gly	Leu
62		290					295					300				
63		Tyr	Thr	Gly	Ile	_	Asp	Ile	Val	Gln	-	Phe	Ser	Cys	Gly	Gly
64	305	_		_	_	310			_		315	_	_			320
65 - 66	Cys	Leu	GLu	Lys	Trp 325	GIn	Glu	Gly	Asp	330	Pro	Leu	Asp	Asp	His	Thr
67	Arg	Cys	Phe	Pro	Asn	Cys	Pro	Phe	Leu	Gln	Asn	Met	Lys	Ser	Ser	Ala
68				340					345					350		
69	Glu	Val	Thr	Pro	Asp	Leu	Gln	Ser	Arg	Gly	Glu	Leu	Cys	Glu	Leu	Leu
70			355					360					365			
7.0	Glu		Thr	Ser	Glu	Ser		Leu	Glu	Asp	Ser		Ala	Val	Gly	Pro
12	~1 ~	370	D	a1	36.4	.1.	375	a 1	a 1		01	380	nh a	a 1	a1	
/[2] 7.4.	385	vaı	Pro	GIU	мес	390	GIN	СТА	GIU	Ата	395	ттр	Pne	GIN	Glu	400
7.4. 75		λen	T.Au	Aen	Glu		T.011	λνα	Δla	λla		Thr	Sar	λla	Ser	
76	пуэ	YOU	Leu	POII	405	GIII	пеп	Arg	Ата	410	тут	1111	261	Ата	415	rne
}}	Ara	His	Met	Ser		Leu	Asp	Ile	Ser		Asp	Leu	Ala	Thr	Asp	His
78	3			420					425					430		
7:9	Leu	Leu	Gly	Cys	Asp	Leu	Ser	Ile	Ala	Ser	Lys	His	Ile	Ser	Lys	Pro
80			435					440					445			
84	Val		Glu	Pro	Leu	Val		Pro	Glu	Val	Phe	_	Asn	Leu	Asn	Ser
8.2	_/	450		_	_		455	_	_		_	460				
8 <u>.3</u>		Met	Cys	Val	Glu		Glu	Ala	Gly	Ser		Lys	Thr	Val	Leu	
<u>\$4</u> 85	465	T 110	T1.	א ז ה	Dho	470	m~~	71~	Con	C1	475	Crro	Dwo	T 011	T 0.11	480
86 86	ьys	гÃR	rre	Ald	485	reu	ттр	Ала	ser	490	Cys	Cys	PIO	Leu	Leu 495	ASII
87	Δrσ	Phe	Gln	T.e.11		Phe	Tvr	Len	Ser		Ser	Ser	Thr	Δτα	Pro	Asn
88	5		V	500			-1-		505					510		
89	Glu	Gly	Leu	Ala	Ser	Ile	Ile	Cys	Asp	Gln	Leu	Leu	Glu		Glu	Gly
90		_	515					520	_				525	-		-
91	Ser	Val	Thr	Glu	Met	Cys	Met	Arg	Asn	Ile	Ile	Gln	Gln	Leu	Lys	Asn
92		530					535					540				
93		Val	Leu	Phe		Leu	Asp	Asp	Tyr	Lys		Ile	Cys	Ser	Ile	Pro
94	545					550			_	_	555		_	_		560
95 06	GIn	val	те	GTA		ьeu	тте	GIn	Lys		H1S	Leu	ser	Arg	Thr	Cys
96 97	Lon	Len	T1 ~	λ1-	565 Val	λ~~	ሞ⊳∽	λας	λ~~	570	7 r~	7.00	т1 ^	7 ~~	575 Arg	M***
98	ьeu	п¢и	116	580	val	vià	TIIT	Vali	585	мта	wrd	wah	TIE	590	Ary	тйт
99	Leu	G] n	Thr		Leu	G] 11	Ile	Lvs		Phe	Pro	Phe	Tvr		Thr	Va.1
100			595					600					605			
101	Cys	Ile	e Lei	ı Arç	J Lys	Lei	Phe			Ası	Met	Thi			ı Arg	J Lys
101 Cys Ile Leu Arg Lys Leu Phe Ser His Asn Met Thr Arg Leu Arg Lys																



RAW SEQUENCE LISTING DATE: 03/07/2002 PATENT APPLICATION: US/09/830,338 TIME: 15:41:41

Input Set : A:\Ikeda Sequence Listing.txt Output Set: N:\CRF3\03072002\1830338.raw

102		610					615					620				
102	Dho		Wa I	m	Dho	C1		Asn	Cln	602	Τ ου		T ***	T1.	C15	T ***
		Mec	Val	ıyı	FIIE	630	пуз	ASII	GIII	261	635	GTII	пÃр	TTE	GIII	640
104	625	D	+	Db -	77-7			-1 -	Q			D)	nh -	01	m	
105	Thr	Pro	Leu	Pne		Ата	Ala	Ile	Cys		HIS	Trp	Pne	GIN	_	Pro
106		_	_	_	645	_	_			650		_	_	_	655	
107	Phe	Asp	Pro		Phe	Asp	Asp	Val		val	Phe	Lys	Ser	_	Met	Glu
108				660					665					670	_	
109	Arg	Leu		Leu	Arg	Asn	Lys	Ala	Thr	Ala	Glu	Ile		Lys	Ala	Thr
1,10			675					680					685			
111	Val		Ser	Cys	Gly	Glu	Leu	Ala	Leu	Lys	Gly	Phe	Phe	Ser	Cys	Cys
112		690					695					700				
113	Phe	Glu	Phe	Asn	Asp	Asp	Asp	Leu	Ala	Glu	Ala	Gly	Val	Asp	Glu	Asp
114	705					710					715		•			720
115	Glu	Asp	Leu	Thr	Met	Cys	Leu	Met	Ser	Lys	Phe	Thr	Ala	Gln	Arg	Leu
116	•				725					730					735	
117	Arg	Pro	Phe	Tyr	Arg	Phe	Leu	Ser	Pro	Ala	Phe	Gln	Glu	Phe	Leu	Ala
118				740					745					750		
119	Gly	Met	Arg	Leu	Ile	Glu	Leu	Leu	Asp	Ser	Asp	Arg	Gln	Glu	His	Gln
1.20			755					760					765			
$1\overline{2}1$	Asp	Leu	Gly	Leu	Tyr	His	Leu	Lys	Gln	Ile	Asn	Ser	Pro	Met	Met	Thr
1.22	-	770	•		-		775	-				780				
123	Val	Ser	Ala	Tyr	Asn	Asn	Phe	Leu	Asn	Tyr	Val	Ser	Ser	Leu	Pro	Ser
124	785			•		790				•	795					800
1 2 5		Lvs	Ala	Glv	Pro		Ile	Val	Ser	His	Leu	Leu	His	Leu	Val	
1-26		-1-		1	805	-1-				810					815	
127	Asn	Lvs	Glu	Ser		Glu	Asn	Ile	Ser		Asn	Asp	Asp	Tvr		Lvs
1∌28		-1-		820					825					830		-1-
129	ніс	Gl n	Pro		Tle	Ser	Len	Gln		Gln	Leu	Len	Arσ		Len	Tro
1-30			835					840					845	- -2		
131	Gln	Tla		Pro	Gln	Δla	ጥህጕ	Phe	Sor	Mot	Val	Sor		ніс	I.Q11	T.Aii
132	0111	850	Cys	110	0111	nia	855	riic	DCI	MCC	, u i	860	OIu	1113	LCu	LCu
133	Val		Δla	Τ.Δ11	T.37 C	Thr		Tyr	Cln	Sar	λen		Val	Δla	Δla	Cve
134	865	пец	пта	пец	цуз	870	AIU	TYT	GIII	DET	875	1111	Vai	лти	лта	880
135		Bro	Dho	Wa l	LOU		Dho	Leu	Cln	Clv		Thr	LOU	mbr	T.Ou	
136	Ser	PIO	FIIC	Val	885	GIII	rne	neu	GIII	890	Arg	1111	пеп	1111	895	GIY
137	פוג	T OU	λan	T OU		m	Dho	Phe	λen		Dro	C1.,	Cor	Ton		TOU
138	Ата	пеп	ASII	900	GIII	1 7 1	rne	FIIE	905	птэ	PIO	GIU	Ser	910	Set	пеп
139	T OU	λνα	Cor		น่อ	Dho	Dro	Ile		C1 vr	7 an	Two	Thr		Dro	λrσ
140	Leu	ALY	915	TTE	птэ	FIIE	PIO	920	ALY	GLY	ASII	пуъ	925	Ser	PIO	AIG
141	λla	Wie		Cor	V = 1	LOU	Clu	Thr	Cvc	Dho	λαη	Two		Cln	T = 1	Dro
142	Ата	930		Ser	Val	ьец	935		Cys	FIIE	wah	940	Ser	GIII	Val	PIO
	mh m			C1 =	3.55	П			210	Dha	~1		360+	7 ~ ~	a1	m
143 144	945	тте	Asp	GTII	ASP	950	ATG	Ser	HTG	File		PLO	Met	ASII	GIU	_
		3	3	T	31-		T	a 1	3	3	955	T			14-4	960
145.	GIU	arg	ASN	ьeu		GLU	гÀг	Glu	ASP		val	ьys	ser	туr		Asp
146	14 - 4-	a1 -			965	0	D	3	T .	970	m1	~ 2		m-	975	
147	мет	GIN	Arg	_	ATA	ser	Pro	Asp		ser	rnr	стА	ryr		ràs	ьeu
148			-	980	.	_	- 2	n-	985		~ 7			990	_	_
149	ser	Pro	-	GIn	Tyr	гãг		Pro	Cys	Leu	GIu		_	val	Asn	Asp
150			995]	1000]	1005			



RAW SEQUENCE LISTING DATE: 03/07/2002 PATENT APPLICATION: US/09/830,338 TIME: 15:41:41

Input Set : A:\Ikeda Sequence Listing.txt
Output Set: N:\CRF3\03072002\I830338.raw

151 152		Gln Asp Met Leu Glu · 1015	Ile Leu Met Thr Val Phe 1020
153 154	Ser Ala Ser Gln Arg 1025	Ile Glu Leu His Leu 1030	Asn His Ser Arg Gly Phe 1035 1040
155 156	Ile Glu Ser Ile Arg		Ser Lys Ala Ser Val Thr 1055
157 158			Ala Ala Glu Gln Glu Leu 1070
159 160			Glu Val Ser Gly Thr Ile 1085
161 162			Asp Lys Phe Leu Cys Leu 1100
163	Lys Glu Leu Ser Val	Asp Leu Glu Gly Asn	Ile Asn Val Phe Ser Val
164	1105		1115 1120
165 166	1125	1130	Met Glu Lys Leu Leu Ile 1135
167 1 <u>6</u> 8	1140	1145	Leu Val Lys Leu Ile Gln 1150
1 <u>6</u> 9 170	Asn Ser Pro Asn Leu 1155	His Val Phe His Leu 1160	Lys Cys Asn Phe Phe Ser 1165
171 172	Asp Phe Gly Ser Leu 1170	Met Thr Met Leu Val	Ser Cys Lys Lys Leu Thr 1180
173			Ala Val Pro Phe Val Ala
174	1185	1190	1195 1200
175 176	Ser Leu Pro Asn Phe 1205	-	Leu Asn Leu Glu Gly Gln 1215
1277 1278	Gln Phe Pro Asp Glu 1220	Glu Thr Ser Glu Lys 1225	Phe Ala Tyr Ile Leu Gly 1230
1-7 _. 9 1.80	Ser Leu Ser Asn Leu 1235	Glu Glu Leu Ile Leu 1240	Pro Thr Gly Asp Gly Ile 1245
181 182	Tyr Arg Val Ala Lys 1250	Leu Ile Ile Gln Gln 1255	Cys Gln Gln Leu His Cys 1260
183	-		Asn Asp Asp Ser Val Val
184	1265	1270	1275 1280
185 186	Glu Ile Ala Lys Val 1285	Ala lie Ser Gly Gly 1290	Phe Gln Lys Leu Glu Asn 1295
187	_	_	Glu Glu Gly Tyr Arg Asn
188	1300	1305	1310
189 190	Phe Phe Gln Ala Leu 1315	Asp Asn Met Pro Asn 1320	Leu Gln Glu Leu Asp Ile 1325
191		****	Gln Ala Thr Thr Val Lys
192	1330	1335	1340
193	Ser Leu Ser Gln Cys	Val Leu Arg Leu Pro	Arg Leu Ile Arg Leu Asn
194	1345	1350	1355 1360
195			Ile Ala Leu Leu Asn Val
196	1365	1370	1375
197	Met Lys Glu Arq His		Leu Thr Ile Leu Gln Lys
198	1380	1385	1390
199	Trp Ile Leu Pro Phe	Ser Pro Ile Ile Gln	Lys





RAW SEQUENCE LISTING DATE: 03/07/2002 PATENT APPLICATION: US/09/830,338 TIME: 15:41:41

Input Set : A:\Ikeda Sequence Listing.txt
Output Set: N:\CRF3\03072002\I830338.raw

200 1395 1400 1403 202 <210> SEO ID NO: 2 203 <211> LENGTH: 5984 204 <212> TYPE: DNA 205 <213> ORGANISM: Homo sapiens 207 <220> FEATURE: W--> 208 <221> NAME/KEY: CDC 209 <222> LOCATION: (292)..(4500) 211 <400> SEQUENCE: 2 C--> 212 acaaaaggtc ctgtqctcac ctgggaccct tctggacgtt gccctgtgtt cctcttcgcc 60 213 tgcctgttca tctacgacga accccgggta ttgaccccag acaacaatgc cacttcatat 120 214 tggggacttc gtctgggatt ccaaggtgca ttcattgcaa agttccttaa atattttctc 180 240 215 actgetteet actaaaggae ggacagagea tttgttette agecacatae ttteetteea 216 ctqqccaqca ttctcctcta ttaqactaqa actqtqqata aacctcaqaa aatqqccacc 300 360 217 caqcaqaaaq cctctqacqa gaggatctcc cagtttgatc acaatttgct gccagagctg 218 totqctotto tqqqcotaga tqcaqttcaq ttqqcaaaqq aactagaaqa aqaqqaqcaq 420 480 219 aaggagcqaq caaaaatqca gaaaggctac aactctcaaa tgcqcagtga agcaaaaagg 220 ttaaagactt ttgtgactta tgagccgtac agctcatgga taccacagga gatggcggcc 540 221 getgggtttt acttcactgg ggtaaaatct gggattcagt gcttctgctg tagcctaatc 600 660 222 ctctttggtg ccggcctcac gagactcccc atagaagacc acaagaggtt tcatccagat 223 tgtqqqttcc ttttqaacaa ggatqttqqt aacattqcca aqtacqacat aaqqqtqaaq 720 🕮 aatotgaaga goaggotgag aggaggtaaa atgaggtaco aagaagagga ggotagaott 780 225 gcatcettea ggaactggee attttatgte caagggatat eccettgtgt geteteagag 226 getggetttg tetttacagg taaacaggae aeggtacagt gttttteetg tggtggatgt 840 900 227 ttaggaaatt gggaagaagg agatgateet tggaaggaae atgeeaaatg gtteeceaaa 960 228 tgtgaatttc ttcggagtaa gaaatcctca gaggaaatta cccagtatat tcaaagctac 1020 229 aagggatttg ttgacataac gggagaacat tttgtgaatt cctgggtcca gagagaatta 1080 20 cctatggcat caqcttattq caatqacaqc atctttqctt acgaaqaact acgqctqgac 1140 201 tettttaagg actggeeeg ggaateaget gtgggagttg cageactgge caaageaggt 232 cttttctaca caggtataaa ggacatcgtc cagtgctttt cctgtggagg gtgtttagag 1260 233 aaatggcagg aaggtgatga cccattagac gatcacacca gatgttttcc caattgtcca 1320 434 tttctccaaa atatgaagtc ctctgcggaa gtgactccag accttcagag ccgtggtgaa 235 ctttqtqaat tactqqaaac cacaagtgaa agcaatcttg aagattcaat agcagttggt 236 cctatagtgc cagaaatggc acagggtgaa gcccagtggt ttcaagaggc aaagaatctg 237 aatqaqcaqc tgaqaqcaqc ttataccaqc qccaqtttcc qccacatgtc tttqcttgat 238 atotottocg atotggccac ggaccacttg otgggotgtg atotgtotat tgottoaaaa 1620 239 cacatcagca aacctgtgca agaacctctg gtgctgcctg aggtctttgg caacttgaac 1680 240 totqtcatqt qtqtqqaqqq tqaaqotqqa aqtqqaaaqa cqqtcctcct qaaqaaaata 1740 241 gettttetgt gggeatetgg atgetgteee etgttaaaca ggtteeaget ggttttetae 242 ctctccctta gttccaccag accagacgag gggctggcca gtatcatctg tgaccagctc 1860 1920 243 ctagagaaag aaggatetgt tactgaaatg tgcatgagga acattateca gcagttaaag 244 aatcaggtet tatteetttt agatgaetae aaagaaatat gtteaateee teaagteata 245 ggaaaactga ttcaaaaaaa ccacttatcc cggacctgcc tattgattgc tgtccgtaca 2040 246 aacaqqqcca qqqacatccq ccgataccta qagaccattc tagagatcaa agcatttccc 2100 247 ttttataata ctgtctgtat attacggaag ctcttttcac ataatatgac tcgtctgcga 2160 248 aagtttatgg tttactttgg aaagaaccaa agtttgcaga agatacagaa aactcctctc 2220 249 tittgtggcgg cgatctgtgc tcattggttt cagtatcctt ttgacccatc ctttgatgat 2280 250 gtqqctqttt tcaaqtccta tatqqaacqc ctttccttaa ggaacaaaqc gacagctqaa 251 atteteaaag caactgtgte etectgtggt gagetggeet tgaaagggtt ttttteatgt 2400



٠,;



DATE: 03/07/2002

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/830,338

TIME: 15:41:42

Input Set : A:\Ikeda Sequence Listing.txt
Output Set: N:\CRF3\03072002\I830338.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:208 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2

L:212 M:112 C: (48) String data converted to lower case,

M:112 Repeated in SeqNo=2